AW-3: Reconfigure Airports Efficiently

Benefit, Performance, Metrics

ITWS provides information to facilitate matching of arrival and departure restrictions to forecasted weather. Traffic flow patterns of inbound and outbound aircraft can be optimized; upstream holding patterns are reduced; congestion on the ground is reduced; and, gate holds and stops are reduced, freeing gates for inbound traffic.

Studies completed at the NYC area airports in 2001 show that on high vertical wind shear days, the AAR is raised by 3 aircraft per hour, per airport, during the event. During convective weather events it was found that 10% more flights departed as a result of ITWS information and arrivals increased by 4 per hour over a two-hour event.

Operational data from ITWS prototypes deployed at major airports have been collected and analyzed on an on-going basis since 1994. It is well documented that ITWS makes a major contribution toward improved airport efficiency by reducing delays during adverse weather. The data show that when ITWS is fully deployed, delay reductions per year are expected to be on the order of 12,000,000 minutes. This translates to approximately $188M per year in reduced airline operating costs. Total annual economic benefit is estimated at $625M per year when savings in passenger time are included.